## SAE J2530 TEST REPORT FOR LIGHT ALLOY WHEEL

### Reference No.

**16021903**

### Type

**F10D Right**

### Nominal designation of rim

**19×10J**

### Offset (mm)

**53.75**

### P.C.D. (mm)

**130**

### Number of bolt holes

**5**

### Structure

**1-PC**

### Material

**A356.2**

### Manufacturing method

**Flow Forming**

### Tire used for test

<table>
<thead>
<tr>
<th>Item</th>
<th>Nominal designation of tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radial load endurance test</td>
<td>285/35R19</td>
</tr>
<tr>
<td>Impact test</td>
<td>255/40R19</td>
</tr>
</tbody>
</table>

### MAX LOADING:

**1600LBS**  
**HUB=72.56mm**

### PCD DRILLED:

**15.75X28.5mm**

### 1. Testing conditions and results

#### (1) Rotary bending fatigue test

- **Date of test**: (Month) 01 (Day) 23 (Year) 2016
- **Testing equipment approval number**: A-238

<table>
<thead>
<tr>
<th>Bending moment during test (KN.m)</th>
<th>Rotational speed for test</th>
<th>Number of Test Required</th>
<th>Damage to disk wheel</th>
<th>Loosening of tightening section</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.35</td>
<td>150,000 circles</td>
<td>2</td>
<td>None</td>
<td>OK</td>
<td>Qualified/Disqualified</td>
</tr>
</tbody>
</table>

Used in calculation of bending moment:

- **R**=342.9mm
- **u**=0.7
- **d**=53.75mm
- **W**=725.76KG

Calculated bending moment value {KN.m} \( M=3.344 \)

#### (2) Radial load endurance test

- **Date of test**: (Month) 01 (Day) 24 (Year) 2016
- **Testing equipment approval number**: B-224

<table>
<thead>
<tr>
<th>Pre-test airpressure [kpa]</th>
<th>Radial load during test [kN]</th>
<th>Rotational speed for test</th>
<th>Number of Test Required</th>
<th>Damage to disk wheel</th>
<th>Loosening of fixture section etc.</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>460</td>
<td>14.23</td>
<td>1,850,000 circles</td>
<td>2</td>
<td>None</td>
<td>OK</td>
<td>Qualified/Disqualified</td>
</tr>
</tbody>
</table>

Used in calculation of Radial load [kN] [kgf] 
Calculated Radial load \( K=2.0 \) \( F=14.225 \)

#### (3) Impact test 13º

- **Date of test**: (Month) 01 (Day) 22 (Year) 2016
- **Testing equipment approval number**: C-297

<table>
<thead>
<tr>
<th>Pre-test air pressure [kpa]</th>
<th>Total width (mm)</th>
<th>Weight mass (kg)</th>
<th>Drop height (mm)</th>
<th>Number of Test Required</th>
<th>Damage to disk wheel</th>
<th>Air leakage</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>259</td>
<td>616</td>
<td>230</td>
<td>2</td>
<td>NONE</td>
<td>OK</td>
<td>Qualified/Disqualified</td>
</tr>
</tbody>
</table>

#### (4) Overall evaluation: Qualified/ Disqualified